



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

fw

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/843,629 | 04/26/2001 | Mototsugu Abe | 09792909-5003 | 9203 |

26263 7590 12/18/2006
SONNENSCHEIN NATH & ROSENTHAL LLP
P.O. BOX 061080
WACKER DRIVE STATION, SEARS TOWER
CHICAGO, IL 60606-1080

| |
|----------|
| EXAMINER |
|----------|

VENT, JAMIE J

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2621

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 12/18/2006 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/843,629 | ABE ET AL. |
| | Examiner | Art Unit |
| | Jamie Vent | 2621 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 9/19/2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 39 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12,14-38,40-54 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 19, 2006 has been entered.

Response to Arguments

Applicant's arguments with respect to the remaining pending claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, filed September 19, 2006 argues that the references fails to show "an index information extracting means for extracting information from the first signal section to be used as a user-selectable index representing the recorded first signal." Takahashi et al teaches a system that extracts index information as seen in Figure 19 s706. The information is extracted from the information signals to provide an index as seen in Figure 13 and described in Column 14 Lines 59+ through Column 15 Lines 1-12 that recite that portions of the signal "are extracted from the index information" and thereby meeting the limitations.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12; 14-38; 40-54 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nafeh (US 5,343,251) in view of Kanda (US 5,930,446) in further view of Merriman et al (US 2003/0028433).

[claims 1 & 27]

In regard to Claims 1 and 27, Nafeh discloses a signal processing device and method comprising:

- a first signal section detecting means for detecting a first signal section from an input signal including at least the first signal section and the remaining signal section on a time division basis (Figure 1a shows the detecting of the first signal section as further described in Column 2 Lines 40+);
- a first signal extracting means for extracting the signal in the first signal section from the input signal in accordance with a result of the detection by the first signal section (Column 2 Lines 63+ through Column 3 Lines 1-16 describes the extracting of the signal as a result of detecting the first signal section); and

- a recording means for recording each signal extracted from the input signal by the first signal extracting means (Figure 1a shows the recording means in VCR 20); however fails to disclose
- an index information extracting means for extracting information from said first signal section to be used as a user-selectable index representing said recorded first signal and display means for displaying said index.

Takahashi et al teaches a system that extracts index information as seen in Figure 19 s706. The information is extracted from the information signals to provide an index as seen in Figure 13 and described in Column 14 Lines 59+ through Column 15 Lines 1-12 that recite that portions of the signal "are extracted from the index information."

Additionally, Column 18 Lines 24-35 describes the extraction of portions of information to produce an index. As described by Nafeh and taught by Takahashi the extraction of information to form an index allows for a system to provide desired portions to be searched and reproduced efficiently. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the system, as disclosed by Nafeh, for recording and extracting signals and further provide the system the ability to extract index information to form and display an index, as taught by Takahashi et al.

[claims 2 & 28]

In regard to Claims 2 and 28, Nafeh discloses a signal processing device and method further comprising a characteristic value extracting means for extracting the characteristic values characterizing the first signal from the detected first signal section, wherein said recording means records the characteristic values of the first signal in

association with the first signal (Column 3 Lines 20-57 describes the processing the characteristic values that are extracted from the signal).

[claims 3 & 29]

In regard to Claims 3 and 29, Nafeh discloses a signal processing device and method wherein said first signal section detecting means detects said first signal section from said input signal on the basis of a characteristic pattern of the first signal appearing in said input signal at predetermined time intervals and a characteristic value reflecting the probability of the first signal appearing in the input signal (Column 5 Lines 30-67 through Column 6 Lines 1-12 describes the detecting of the first signal section on the basis of characteristic patterns and wherein the probability of the characteristic value is calculated).

[claims 4 & 30]

In regard to Claims 4 and 30, Nafeh discloses a signal processing device and method wherein said first signal section detecting means detects said first signal section on the basis of predetermined guide information which is prepared corresponding to said input signal (Column 3 Lines 20-57 describes the basis of the prepared corresponding to the input signal).

[claims 5 & 31]

In regard to Claims 5 and 31, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is amplitude of the signal in the first signal section (Column 3 Lines 34-36 and Column 3 Lines 60+).

describes the signal processing device wherein the changes in amplitude are measured between signals/segments).

[claims 6 & 32]

In regard to Claims 6 and 32, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is a spectrum of the signal in the first signal section (Column 3 Lines 37-48 describes the spectrum of the signal wherein the change between signals/segments are determined).

[claims 7 & 33]

In regard to Claims 7 and 33, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is a linear prediction coefficient of the signal in the first signal section (Column 5 Lines 52-67 describes the linear prediction coefficient of the signal in the first section).

[claims 8 & 34]

In regard to Claims 8 and 34, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is a histogram of a predetermined component of the signal in the first signal section (Column 3 Lines 20-56 describes the components that comprise a histogram wherein the predetermined component of the signal).

[claims 9, 10, 35, & 36]

In regard to Claims 9, 10, 35, and 36, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is mean value and difference of the predetermined component of the signal in the first signal section

Art Unit: 2621

(Column 6 Lines 6-50 describes the calculation of the average value of the predetermined components).

[claims 11 & 37]

In regard to Claims 11 and 37, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is the number of changes of the state of the signal in the first signal section (Column 6 Lines 40+ describes the characteristic value wherein the first signal is the number of changes that take place between segments).

[claims 12 & 38]

In regard to Claims 12 and 38, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is the time of the change of the state of the signal in the first signal section (Column 5 Lines 12-27 describes the signal processing wherein the time change determines the state of the signal).

[claims 14 & 40]

In regard to Claims 14 and 40, Nafeh discloses a signal processing device and method wherein said index information is an edited signal obtained by editing said first signal (Column 1 Lines 15-55 describes the editing of the first signal).

[claims 15, 16, & 41]

In regard to Claims 15, 16, and 41, Nafeh discloses a signal processing device and method wherein said edited signal obtained by editing said first signal comprises a set of signals at the time when the state of said first signal changes which represent the

start or ending part of the signals (Column 5 Lines 12-27 describes the timing of the segments/signals which comprises the various signals).

[claims 17 & 42]

In regard to Claims 17 and 42, Nafeh discloses a signal processing device and method wherein said index information extracting means extract the signal at a time when the state of said first signal changes (Figure 1a shows the extracting of the signal at the time when the state of the first signal changes as further described in Column 3 Lines 20-56).

[claims 18 & 43]

In regard to Claims 18 and 43, Nafeh discloses the signal processing device and method further comprising a comparing means for comparing characteristic values respectively characterizing two first signals recorded by said recording means and discarding one of the recorded two first signals when the characteristic values of the two first signals are determined to be substantially the same (Column 5 Lines 30+ describes the comparing of characteristic values that characterize different first signals).

[claims 19 & 44]

In regard to Claims 19 and 44, Nafeh discloses the signal processing device and method wherein said comparing means is detects agreement/disagreement of the first signals in a part of the section or in the entire section by comparing said characteristic values (Column 6 Lines 25+ describes the comparing of the first signals in a part of the section or entire section that compares to the characteristic values).

[claims 20 & 45]

In regard to Claims 20 and 45, Nafeh discloses the signal processing device and method wherein said comparing means detects the degree of similarity of the first signals in a part of the section or in the entire section by comparing said characteristic values (Column 6 Lines 6+ describes the detection of similarity between the first segment and the entire segment).

[claims 21 & 46]

In regard to Claims 21 and 46, Nafeh discloses the signal processing device and method wherein said comparing means performs the comparing operation on a basis of the distance as determined by using a predetermined distance scale between vectors formed at least one of the amplitude of the signal in the first signal section, the spectrum of the signal in the first signal section, the linear prediction coefficient of the signal in the first signal section, the histogram of a predetermined component of the signal in the first signal section, the mean value of the predetermined component of the signal in the first signal section, the difference in the predetermined signal component of the signal in the first signal section, the number of changes in the state of the signal in the first signal section and the time of a change in the state of the signal in the first signal section (Column 3 Lines 20-56 describes the components that comprise a histogram wherein the predetermined component of the signal).

[claims 22 & 47]

In regard to Claims 22 and 47, Nafeh discloses a signal processing device and method further comprising:

- an index information specifying means for specifying desired index information from said displayed plurality of pieces of index information (Figure 1a shows the extraction of index information which represents the first signal as further described in Column 2 Lines 55-63 and Column 3 Lines 20-57); and
- a retrieving means for retrieving the first signal corresponding to said specified index information (Column 7 Lines 20-40 describes the retrieving means used for retrieving specified index information).

[claims 23, 24, 48, 49, & 50]

In regard to Claims 23, 24, 48, 49, and 50 Nafeh discloses the signal processing device and method further comprising:

- a retrieving means for retrieving the first signal substantially agreeing with said first signal from said recording means, using said first signal in a part of the section or in the entire section or a characteristic value characterizing the first signal as retrieving condition (Column 7 Lines 20-40 describes the retrieving means used for retrieving specified index information)..

[claims 25, 26, 51, & 52]

In regard to Claims 25, 26, 51, and 52, Nafeh discloses the signal processing device and method further comprising: a measuring means for measuring the number of times and/or the hours of appearances of a same first signal (Figure 7 Lines 45-57 describes the measuring of the number of occurrences that a segment occurs within the signal).

[claims 53 & 54]

In regard to Claims 53 and 54, Nafeh discloses a signal processing device and method wherein said input signal comprises a video signal and/or an audio signal and said first signal covers a commercial message section (Column 7 Lines 30-57 describes that the first signal covers a commercial message section).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kanda (US 5,930,446)
- Merriman et al (US 2003/0028433).

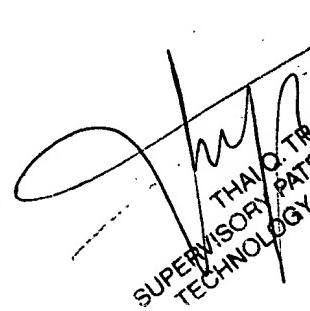
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jamie Vent



THAO TRAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800